

IO24270
-001



Re: Fw: Bee incidents - Ohio too ! 
Norman Spurling to: Thomas Steeger
Cc: Robert Miller

05/23/2012 11:47 AM

Tom Zachos in the US EPA regional office in NY handles a lot of incidents but I'm not sure he is the right person. Dr. Adrian Enache also has handled some incident reports in Region 2.
Norman Spurling
6(a)(2) Coordination and Analysis Team Leader
OPP/ITRMD/ISB
703-305-5835

Thomas Steeger

Beekill incident in New York. Do you know who t...

05/22/2012 07:37:33 PM

From: Thomas Steeger/DC/USEPA/US
To: Norman Spurling/DC/USEPA/US@EPA
Date: 05/22/2012 07:37 PM
Subject: Fw: Bee incidents - Ohio too !

Beekill incident in New York.

Do you know who the correct contact is for this EPA Region?

----- Forwarded by Thomas Steeger/DC/USEPA/US on 05/22/2012 07:36 PM -----

From: Thomas Steeger/DC/USEPA/US
To: <jdoan@rochester.rr.com>
Date: 05/22/2012 07:36 PM
Subject: Re: Bee incidents - Ohio too !

Dear Mr. Jim Doan,

Once again thank you for your willingness to speak with me today. As I indicated over the phone, the information which you provided will be entered into the EPA Office of Pesticide Programs' (OPP) Incident Data System (IDS) and into the Ecological Incident Information System (EIIS) which is maintained by the Division in which I work, i.e., the Environmental Fate and Effects Division. Risk assessors within OPP make use of these databases as a line of evidence in determining the potential effects of pesticides; these data are very useful toward understanding how chemicals may impact the environment under actual use conditions.

I am providing a summary of what we discussed relative to your recent beekill. I request that you review the information and let me know if there are any inaccuracies or whether you have any additional information. Based on our discussion, you indicated that on May 11, 2012, you observed bees dying in 48 colonies which had recently been retrieved from an orchard near Geneva, New York. The affected colonies had lost a large percentage of their forage force leaving roughly 5 - 6 frames of bees; however, there were insufficient bees to cover brood and brood were starting dying as well (evidenced by spotty brood pattern and dead brood being carried out of the colony by workers). Larvae in the colony appeared similar to American foulbrood; however the colony did not have foulbrood. The colonies did contain honey stores within the supers; however, because of the loss of forage bees, the ability of the colonies to produce an additional honey crop in the near future has been eliminated.

You have a total of 1600 colonies, but only 48, i.e., those located in the orchard adjacent to

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where corn was planted, were affected. Other colonies appear to be doing very well.

The hives had been providing pollination services to a 50-acre orchard consisting of apple, apricot, and plum trees and by May 11, the last of the trees were completing bloom. The grower had not sprayed his trees with insecticides; however, you believed that it was possible that he had sprayed fungicides during the time that the bees were located in the orchard. Also, the understory of the orchard had been treated with glyphosate. The fields adjacent to the orchard had just been planted with corn beginning around May 7 when the weather warmed and the fields dried sufficiently to bring seeding equipment in. The field was planted with an air seeder.

You are still seeing bees dying. Both the New York Department of Environmental Contamination (DEC) and the Apiary Inspection Service had been contacted. Due to insufficient resources, the DEC was not able to send anyone out to investigate; however, the Apiary Inspection Service sent an inspector to collect samples for pesticide residue and disease/pest analysis. You indicated that the bees collected for residue analysis have been sent to Maryann Frazier at Pennsylvania State University. You do not know when the sample analysis will be completed.

You noted that the fields adjacent to where the affected colonies had been maintained had been subject to a chemical burn-down in preparation for seeding with corn. You do not know which chemicals were used in the process, but you suspect Round-up (glyphosate). You indicated that the orchard operator where your bees were positioned wanted to apply Assail (acetamiprid) and that is why you removed the colonies to your home yard; the operator had not applied the insecticide until you moved your colonies off site.

You provide both pollination services and honey production. Colonies have had relatively high Nosema spore load, but did not appear to be affected. You have been able to control varroa mite loads through the use of MiteAway strips (formic acid); however, you use a single strip per colony to avoid adverse effects to the queen. All of the colonies are queen-right.

You indicated that you have not seen a similar beekill since the late 80s when PennCap M was available. The apiary inspector also noted that he had not seen a similar beekill in some time.

Again, thank you for your willingness to provide information on the recent beekill. If additional information becomes available, I would greatly appreciate if you would let me know.

Sincerely,

Tom Steeger

Thomas Steeger, Ph.D.
Senior Science Advisor
Environmental Fate and Effects Division
U. S. Environmental Protection Agency (MC 7507P)
Ariel Rios Building
1200 Pennsylvania Ave., NW
Washington DC 20460
(703) 305-5444 (Office)
(703) 305-6019 (FAX)

2

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From: <jdoan@rochester.rr.com>
To: Thomas Steeger/DC/USEPA/US@EPA
Date: 05/22/2012 10:52 AM
Subject: Re: Bee incidents - Ohio too !

CAN CALL ANY TIME AT [REDACTED] HOUSE PHONE

----- Thomas Steeger <Steeger.Thomas@epamail.epa.gov> wrote:

> Dear Mr. Doan,

>

> I would like to have the opportunity to learn more about the beekill incident. If you are willing to provide additional details, I can forward questions to you via email. Alternatively, if you provide a contact number and let me a convenient time, I would be willing to call you.

>

> Tom Steeger

> -----

> Sent by EPA Wireless E-Mail Services.

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> ----- Original Message -----

> From: [jdoan@rochester.rr.com]

> Sent: 05/21/2012 09:14 PM AST

> To: Thomas Steeger

> Subject: Re: Bee incidents - Ohio too !

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> -----Dear Thomas Steeger,

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> I reported a bee kill to our NYS DEC. It was as bad a kill as I have seen in 20 years depopulating the hives back to nuc size from 100000 bee hives before kill. They would not come out unless they could fine someone! Unable too because kill had happened at least a week before. Our bee inspection service did come and get samples. Jim Doan

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Update to IO 24270-001



Fw: Beekill Incident
Thomas Steeger to: Norman Spurling

07/28/2012 11:04 AM

Correction: I just received a follow-up email from Mr. Doan indicating that these residues are associated with the first beekill incident he reported in May and which I reported to you on May 22, 2012. His bees were located in an apple orchard and the orchard owner reported using captan. The relatively high captan residues reported below are consistent with its use in the apple orchard; however, elevated levels of phosmet in the bees have not been explained.

I request that this follow-up information be appended to the May incident report from Mr. Jim Doan.

Thank you.

Tom Steeger

----- Forwarded by Thomas Steeger/DC/USEPA/US on 07/28/2012 10:58 AM -----

From: Thomas Steeger/DC/USEPA/US
To: Norman Spurling/DC/USEPA/US@EPA
Date: 07/28/2012 10:57 AM
Subject: Beekill Incident

Norman,

This is a follow-up to a beekill incident report which I forwarded to you on June 23, 2012. The actual incident occurred on June 21 and this email contains information on the pesticide residue analyses which were conducted by Pennsylvania State University (Maryann Frazier) on bees collected from affected colonies. The third column of numbers represents residue levels (presumably in parts per billion; ppb) of pesticides in disoriented bees and the far right column represents residues in pollen. The highest residue in bees is phosmet (399 ppb) while the highest residue in pollen is captan (1,290 ppb). I request that this information be appended to the incident report.

Thank you.

<ecblank.gif>	<ecblank.gif>	2012-035	2012-036
<ecblank.gif>	Internal Lab ID	12CCD818	12CCD819
Detections (ppb)	LIMS ID	AJ35537	AJ35538
Clothianidin	<ecblank.gif>	5.2	1.6
Cyprodinil	<ecblank.gif>	9.4	31.4

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Ethofumesate	<ecblank.gif>	N.D.	5.2
Fenbuconazole	<ecblank.gif>	5.5	N.D.
Methoxyfenozide	<ecblank.gif>	3.7	N.D.
Thiacloprid	<ecblank.gif>	5.2	N.D.
Phosmet	<ecblank.gif>	399	N.D.
Captan	<ecblank.gif>	N.D.	1290
Cyhalothryin	<ecblank.gif>	N.D.	6.8

Tom Steeger

----- Forwarded by Thomas Steeger/DC/USEPA/US on 07/28/2012 10:49 AM -----

From: Thomas Steeger/DC/USEPA/US
 To: Jim Doan <jdoan@rochester.rr.com>
 Date: 07/28/2012 10:47 AM
 Subject: Re: Fwd: FW:

OK-- this information will be added to the June 21 incident report which was captured in the EPA Ecological Incident Information System (EIIIS). Please let me know if any additional information regarding this incident becomes available. Again, thank you for your willingness to provide information to EPA regarding this loss.

Tom

Jim Doan

The inspector removed the live bees that were in the process of dieing from the...

07/28/2012 10:43:14 AM

From: Jim Doan <jdoan@rochester.rr.com>
 To: Thomas Steeger/DC/USEPA/US@EPA
 Date: 07/28/2012 10:43 AM
 Subject: Re: Fwd: FW:

The inspector removed the live bees that were in the process of dieing from the entrances and the pollen sample was just pollen no wax or honey in sample so as not to contaminate the sample and that was a 50 bee sample which was the first that they did. All others now are 200 bee damples

Sent from my iPhone

On Jul 28, 2012, at 10:07 AM, Thomas Steeger <Steeger.Thomas@epamail.epa.gov> wrote:

OK-- so the samples represent dead bees and not comb products (e.g., wax, pollen, honey) and I presume these were bees collected from piles of dead bees at the entrances to hives which were situated in the orchard. Right?

<graycol.gif>Jim Doan ---07/28/2012 10:05:19 AM---Well the bees where setting in a apple orchard when they died Sent from my iPhone

From: Jim Doan <jdoan@rochester.rr.com>
To: Thomas Steeger/DC/USEPA/US@EPA
Date: 07/28/2012 10:05 AM
Subject: Re: Fwd: FW:

Well the bees where setting in a apple orchard when they died

Sent from my iPhone

On Jul 28, 2012, at 9:48 AM, Thomas Steeger <Steeger.Thomas@epamail.epa.gov> wrote:

Thank you for forwarding the pesticide residue analyses. Although the units are not reported, I presume the residue quantities are in terms of part per billion (micrograms per kilogram; ug/kg). Can you tell me what the two samples represent? Are they samples of dead bees or of comb pollen collected from affected colonies? Are the samples from the same colony? If not, are the samples from the same bee yard?

Some of the beekeepers in New York who reported losses, attributed them to either lambda cyhalothrin or the planting of [clothianidin] treated corn seed. While both clothianidin and cyhalothrin residues are detected in these samples, the residues are low relative to phosmet and captan; however, there isn't much consistency between the two samples for either phosmet or captan.

Are you aware of anyone using either captan or phosmet in the vicinity of your colonies?

I hope your yards have not experienced any more losses and that you will soon be able to recoup the losses you experienced earlier this year.

Tom Steeger

<graycol.gif> Jim Doan ---07/28/2012 08:40:45 AM---Sent from my iPhone Begin forwarded message:

From: Jim Doan <jdoan@rochester.rr.com>
To: Bret Adee <badeehoney@gmail.com>, Jeff Anderson <jsa.cmhf@uno.com>, Gene Brandi <gbrandi@sbcglobal.net>, Wesley Card <wesleycard@myabeeepunchers.com>, Walker Honey Company <walker.honey@gmail.com>, Steve Ellis <nhbabsellis@gmail.com>, Jim Frazier <jfrazier@psu.edu>, hansengeo@gmail.com, Peter Jenkins <PJenkins@icta.org>, Mark Jensen <beeguy4jensen@yahoo.com>, "kim@beeculture.com" <kim@beeculture.com>, Dave Mendes <davidmendesn@aol.com>, Rick Smith <beezmans@roadrunner.com>, Thomas Steeger/DC/USEPA/US@EPA, Paul Towers <ptowers@panna.org>, Randy Verhoek <r.verhoek@harvesthoneyinc.com>
Date: 07/28/2012 08:40 AM
Subject: Fwd: FW:

Sent from my iPhone

Begin forwarded message:

From: Maryann Frazier <maryann.frazier15@gmail.com>
Date: July 27, 2012 8:06:20 PM EDT
To: jdoan@rochester.rr.com
Subject: Fwd: FW:

----- Forwarded message -----

From: Simonds, Roger - AMS <Roger.Simonds@ams.usda.gov>
Date: Fri, Jul 27, 2012 at 4:27 PM
Subject: FW:
To: "Maryann Frazier (maryann.frazier15@gmail.com)" <maryann.frazier15@gmail.com>

Hi Maryann,

Below is a summary of what we observed in the two samples that you inquired about. We will have the official

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reports ready next Monday.

Thanks,

Roger

From: Shoemaker, Lauren - AMS
Sent: Friday, July 27, 2012 4:23 PM
To: Simonds, Roger - AMS
Subject:

Attached are the results for the two PSU samples requested, 2012-035 & 2012-036.

<ecblank.gif>	<ecblank.gif>	2012-035	2012-036	
<ecblank.gif>	Internal Lab ID	12CCD818	12CCD819	
Detections (ppb)	LIMS ID	AJ35537	AJ35538	
Clothianidin	<ecblank.gif>	5.2	1.6	
Cyprodinil	<ecblank.gif>	9.4	31.4	
Ethofumesate	<ecblank.gif>	N.D.	5.2	
Fenbuconazole	<ecblank.gif>	5.5	N.D.	
Methoxyfenozide	<ecblank.gif>	3.7	N.D.	
Thiacloprid	<ecblank.gif>	5.2	N.D.	
Phosmet	<ecblank.gif>	399	N.D.	
Captan	<ecblank.gif>	N.D.	1290	
Cyhalothryin	<ecblank.gif>	N.D.	6.8	
			<ecblank.gif>	<ecblank.gif>

<ecblank.gif>

Lauren Shoemaker | Molecular Biologist

USDA AMS S&T NSL | 801 Summit Crossing Place | Suite B | Gastonia, NC 28054
P: [704.833.1501](tel:704.833.1501) | F: [704.853.2800](tel:704.853.2800) | Lauren.Shoemaker@ams.usda.gov

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[attachment "Results for 2012-035 & 2012-036.xlsx" deleted by Thomas Steeger/DC/USEPA/US]